We claim:

1. A method of transmitting data from a transmitter having a timer that counts up to n counts and a modem, comprising:

periodically transmitting a transmission signal that includes a timestamp field,

the timestamp field including a timestamp for synchronizing a receiver timer with the transmitter timer, wherein the timestamp represents a value within the count sequence of the timer and wherein, the timestamp accounts for delays in the modem.

2. The method of claim 1, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

3. The method of claim 1, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

4. The method of claim 1, wherein the transmission signal further includes a timer interval field, and the timer interval field includes timer interval data indicating an interval between periodic transmissions of transmission signals.

5. The method of claim 1, wherein the transmission signal further includes a broadcast pending field indicating the presence of outstanding broadcast data packets.

6. The method of claim 1, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

7. The method of claim 1, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

8. A method of transmitting data from a transmitter having a timer that performs a count sequence up to n counts, comprising:

periodically transmitting a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field, and

loading, after the transmission of the header field begins, a timestamp into the timestamp field of the transmission signal, wherein the timestamp represents a value m within the count sequence of the timer.

9. The method of claim 8, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

10. The method of claim 8, wherein the timestamp is loaded into the timestamp field when the header field is transmitted.

11. The method of claim 8, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

12. The method of claim 8, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

13. The method of claim 8, wherein the header field is the first field of the transmission signal such that the loading of the timestamp field with the timestamp occurs when the transmission of the transmission signal begins.

14. The method of claim 8, wherein the header field includes type data indicating a type of the transmission signal.

15. The method of claim 8, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

16. A method of transmitting data from a transmitter in a wireless local area network, comprising:

periodically constructing, in response to a timer that counts up to n counts, a transmission signal that includes a timestamp field,

running a protocol to determine whether the network is busy,

loading a timestamp, based upon a value m of the timer, into the timestamp field of the transmission signal if the running step determines the network is not busy, and

transmitting the transmission signal containing the timestamp.

17. The method of claim 16, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

18. The method of claim 16, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

19. The method of claim 16, wherein the timestamp represents a value within a count sequence of the timer at a time of transmission of the transmission signal.

20. The method of claim 16, wherein the protocol is a carrier sense multiple access with collision avoidance protocol.

21. The method of claim 16, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

22. A method of transmitting data from a transmitter having a timer that counts up to n counts and a modem, comprising:

periodically transmitting a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field, and

loading, after the transmission of the header field begins, a timestamp into the timestamp field of the transmission signal, the timestamp for synchronizing a receiver timer with the timer, wherein the timestamp is based upon a value m of the timer, the timestamp accounting for delays in the modem.

23. The method of claim 22, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

24. The method of claim 22, wherein the timestamp is loaded into the timestamp field when the header field is transmitted.

25. The method of claim 22, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

26. The method of claim 22, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

27. The method of claim 22, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

28. A method of transmitting data from a transmitter having a timer that counts up to n counts and a modem in a wireless local area network, comprising:

periodically constructing a transmission signal that includes a timestamp field,

running a protocol to determine whether the network is busy or free,

waiting until the protocol determines that the network is free and then loading a timestamp, based upon a value m of the timer, into the timestamp field of the transmission signal, wherein the timestamp is configured for synchronizing a receiver timer with the timer and wherein the timestamp accounts for delays in the modem, and

transmitting the transmission signal containing the timestamp.

29. The method of claim 28, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

30. The method of claim 28, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

31. The method of claim 28, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

32. The method of claim 28, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

33. The method of claim 28, wherein the protocol is a carrier sense multiple access with collision avoidance protocol.

34. A method of transmitting data from a transmitter having a timer in a wireless local area network, comprising:

periodically constructing, in response to a timer that counts up to n counts, a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field,

running a protocol to determine whether the network is busy,

transmitting the transmission signal if the running step determines that the network is not busy, and

loading, after transmission of the header field begins, a timestamp into the timestamp field of the transmission signal, wherein the timestamp represents a value m within a count sequence of the timer.

35. The method of claim 34, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

36. The method of claim 34, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

37. The method of claim 34, wherein the timestamp is loaded into the timestamp field when the header field is transmitted.

38. The method of claim 34, wherein the timestamp accounts for delays in the transmitter modem.

39. The method of claim 38, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

40. The method of claim 34, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

41. A transmitter comprising:

a transmitter timer that counts up to n counts,

a transmitter modem, and

a controller controlling the modem to periodically transmit a transmission signal that includes a timestamp field, the timestamp field including a timestamp for synchronizing a receiver timer with the transmitter timer, wherein the timestamp is based upon a value m of the timer, the timestamp accounting for delays in the transmitter modem.

42. The transmitter of claim 41, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

43. The transmitter of claim 41, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

44. The transmitter of claim 41, wherein the transmission signal further includes a timer interval field, and the timer interval field includes timer interval data indicating an interval between periodic transmissions of transmission signals including traffic pending fields.

45. The transmitter of claim 41, wherein the transmission signal further includes a broadcast pending field including broadcast pending data indicating whether broadcast data is buffered at the transmitter.

46. The transmitter of claim 41, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

47. The transmitter of claim 41, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

48. A transmitter, comprising:

a timer that performs a count sequence up to n counts,

a controller controlling operation of the transmitter to periodically transmit a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field, and controls loading, after the transmission of the header field begins, of a timestamp into the timestamp field of the transmission signal, wherein the timestamp represents a value m within the count sequence of the timer.

49. The transmitter of claim 48, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

50. The transmitter of claim 48, wherein the timestamp is loaded into the timestamp field when the header field is transmitted.

51. The transmitter of claim 48, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

52. The transmitter of claim 48, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

53. The transmitter of claim 48, wherein the header field is the first field of the transmission signal such that the loading of the timestamp field with the timestamp occurs when the transmission of the transmission signal begins.

54. The transmitter of claim 48, wherein the header field includes type data indicating a type of the transmission signal.

55. The transmitter of claim 48, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

56. A transmitter in a wireless local area network, comprising:

a timer that counts up to n counts, and

a controller that controls

periodic construction, in response to the timer, of a transmission signal that includes a timestamp field,

running a protocol to determine whether the network is busy,

loading of a timestamp, based upon a value m of the timer, into the timestamp field of the transmission signal if the running step determines the network is not busy, and

transmission of the transmission signal containing the timestamp.

57. The transmitter of claim 56, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

58. The transmitter of claim 56, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

59. The transmitter of claim 56, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

60. The transmitter of claim 56, wherein the timestamp represents a value within a count sequence of the transmitter timer at a time of transmission of the transmission signal.

61. The transmitter of claim 56, wherein the protocol is a carrier sense multiple access with collision avoidance protocol.

62. The transmitter of claim 56, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

63. A transmitter, comprising:

a transmitter timer that performs a count sequence up to n counts,

a transmitter modem, and

a controller controlling periodic transmission of a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field, and controlling loading, after the transmission of the header field begins, of a timestamp into the timestamp field of the transmission signal, the timestamp for synchronizing a receiver timer with the transmitter timer, wherein the timestamp represents a value m within the count sequence, the timestamp accounting for delays in the transmitter modem.

64. The transmitter of claim 63, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

65. The transmitter of claim 63, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

66. The transmitter of claim 63, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

67. The transmitter of claim 63, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

68. A transmitter in a wireless local area network, comprising:

a transmitter timer that counts up to n counts,

a transmitter modem, and

a controller controlling

periodic generation of a transmission signal that includes a timestamp field,

running of a protocol to determine whether the network is busy or free, and

loading of a timestamp, based upon a value m of the timer, into the timestamp field of the transmission signal if the running step determines the network is free, wherein the timestamp is useable for synchronizing a receiver timer with the transmitter timer, the timestamp accounting for delays in the transmitter modem.

69. The transmitter of claim 68, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

70. The transmitter of claim 68, wherein the transmission signal includes a traffic pending field, and the traffic pending field includes data indicating stations for which the transmitter has data buffered.

71. The transmitter of claim 68, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

72. The transmitter of claim 68, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

73. The transmitter of claim 68, wherein the protocol is a carrier sense multiple access with collision avoidance protocol.

74. A transmitter in a wireless local area network, comprising:

a timer that performs a count sequence up to n counts,

a controller controlling

periodic construction of a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field,

running of a protocol to determine whether the network is busy, and

loading, after transmission of the header field begins, of a timestamp into the timestamp field of the transmission signal, wherein the timestamp represents a value m within the count sequence of the timer.

75. The transmitter of claim 74, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

76. The transmitter of claim 74, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

77. The transmitter of claim 74, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

78. A transmitter in a wireless local area network, comprising:

a transmitter timer that counts up to n counts,

a transmitter modem, and

a controller controlling

periodic construction of a transmission signal that includes a header field and a timestamp field, such that the header field is transmitted before the timestamp field,

running of a protocol to determine whether the network is busy, and

loading of a timestamp into the timestamp field of the transmission signal, wherein the timestamp is useable for synchronizing a receiver timer with the transmitter timer, the timestamp accounting for delays in the transmitter modem.

79. The transmitter of claim 78, wherein the timestamp accounts for delays due to a busy signal on a medium access protocol.

80. The transmitter of claim 78, wherein the transmission signal is periodically transmitted over a wireless local area network by an access point that is connected to a backbone infrastructure.

81. The transmitter of claim 80, wherein the timestamp accounts for a delay between a start of a process to transmit the transmission signal and an actual time of transmitting the transmission signal.

82. The transmitter of claim 80, wherein the protocol is a carrier sense multiple access with collision avoidance protocol.